

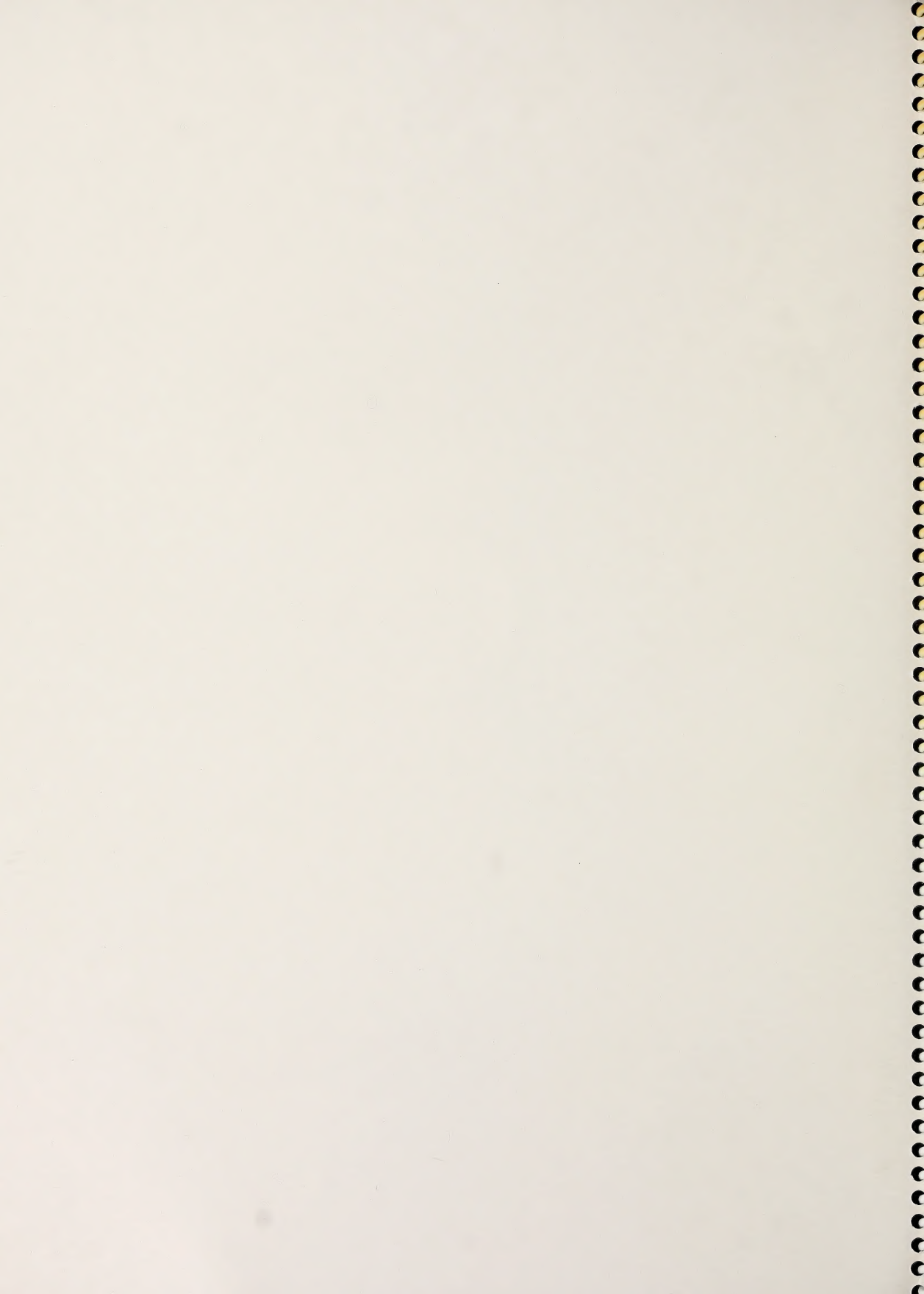
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Economic
Development
And Trade

Alberta Export Outlook

Confidential

DDN 7516267



ALBERTA EXPORT OUTLOOK

Prepared by:

Alberta Economic Development
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Strategic Planning Division
July 1987

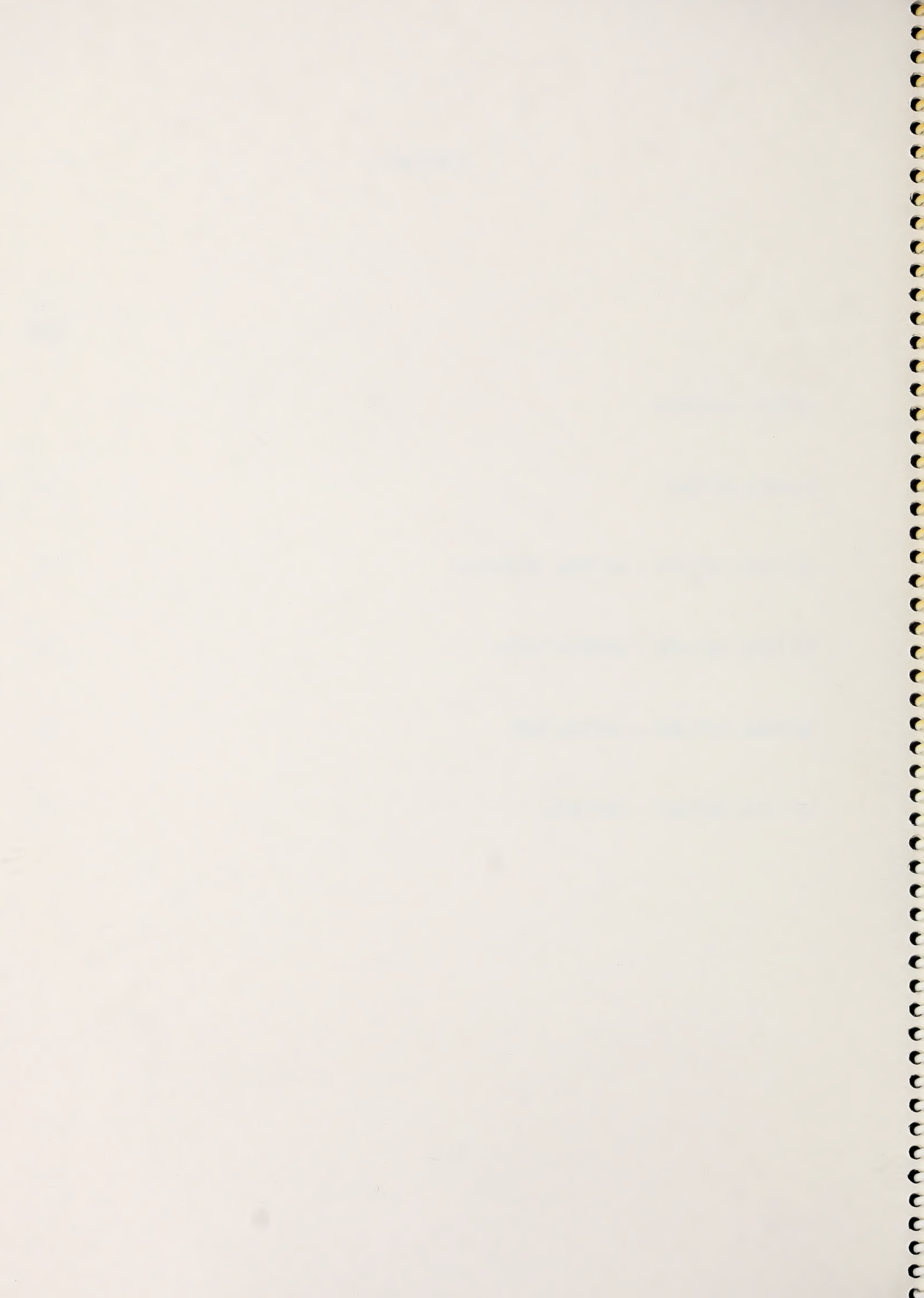
In cooperation with:

Alberta Energy
Alberta Forestry, Lands & Wildlife
Alberta Agriculture
Alberta Tourism
Alberta Treasury, and
Alberta Bureau of Statistics

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ALBERTA EXPORT OUTLOOK

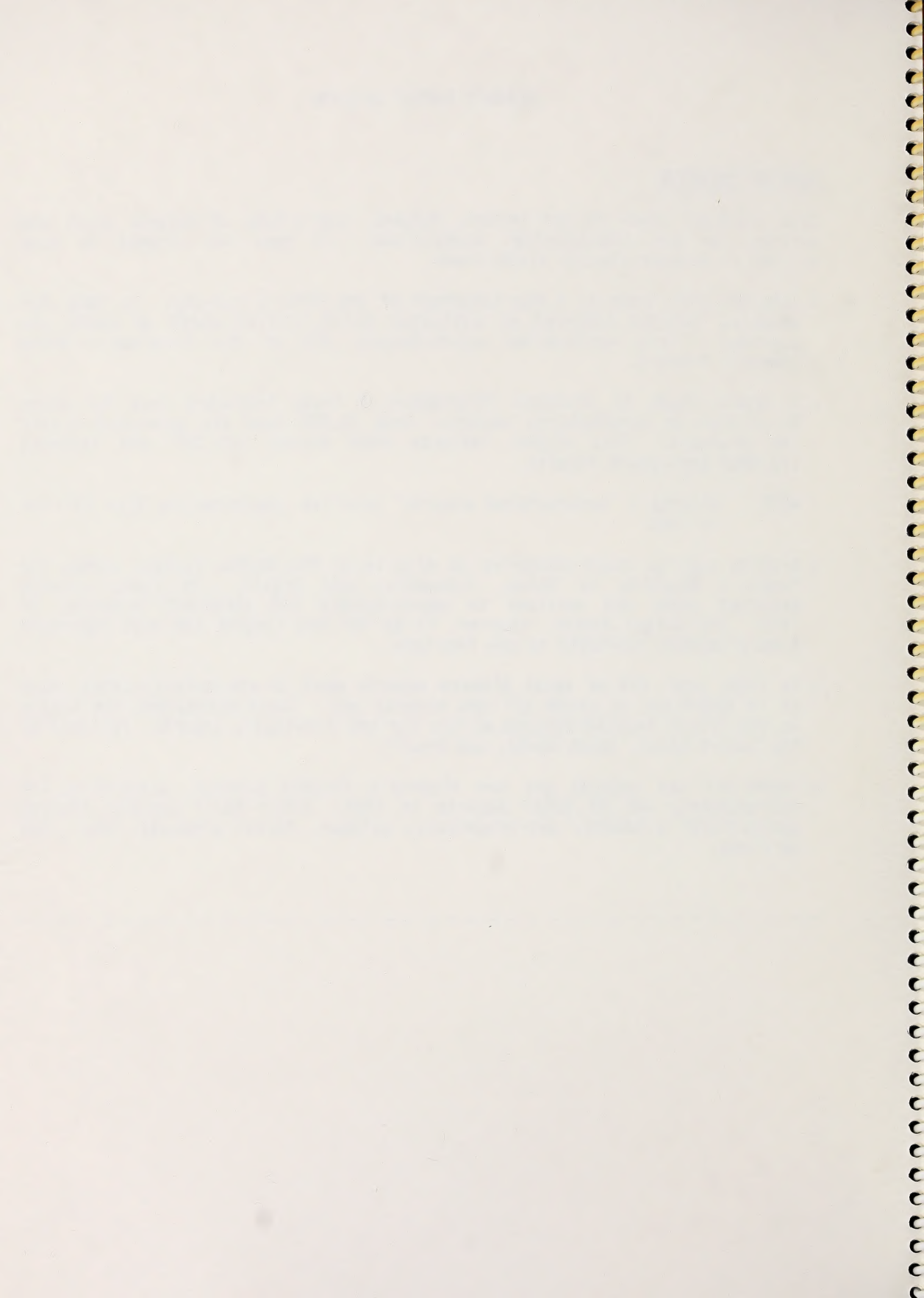
GENERAL OVERVIEW

This document looks at the values, volumes, and prices of Alberta goods and services in the international marketplace. It does not attempt to take account of interprovincial trade flows.

- o International trade is a key component of the Alberta economy. In 1986, for example, Alberta exported an estimated \$11.4 billion worth of goods and services. This represented approximately 21% of the Province's Gross Domestic Product.
- o A recent study by Economic Development & Trade indicates that for every \$1 billion in manufactured exports, some 26,700 jobs are generated within the Province. This figure reflects both direct (10,300) and indirect (16,400) employment impacts.

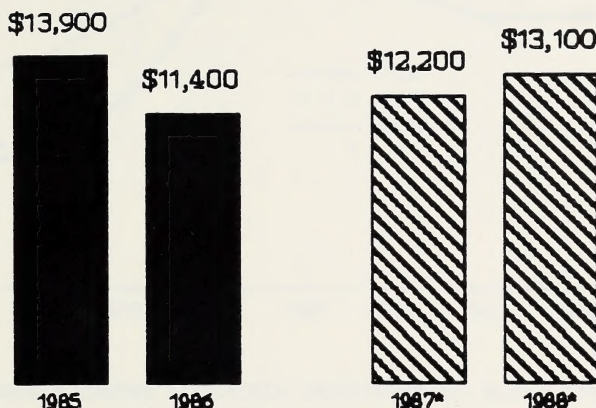
NOTE: Alberta's "manufactured exports" totalled approximately \$2.6 billion in 1986.

- o Alberta exports reach countries as diverse as the United States, Japan, the People's Republic of China, Indonesia, and Brazil. In fact, Alberta exported goods and services to approximately 130 different countries in 1986. The United States, however, is by far the largest and most important foreign market available to the Province.
 - o In 1986, over 71% of total Alberta exports went to the United States, much of it comprised of crude oil and natural gas. Japan maintained its status as the second largest foreign market for the Province's exports, followed by the Soviet Union, South Korea, and Brazil.
 - o Crude oil and natural gas are Alberta's largest exports, accounting for approximately 44% of total exports in 1986. Other major exports include agricultural products, petrochemicals, sulphur, forest products, coal, and services.
-



ALBERTA OUTLOOK

Chart 1: Total Alberta Exports - Goods and Services
Value (Millions of Dollars)



* Forecast

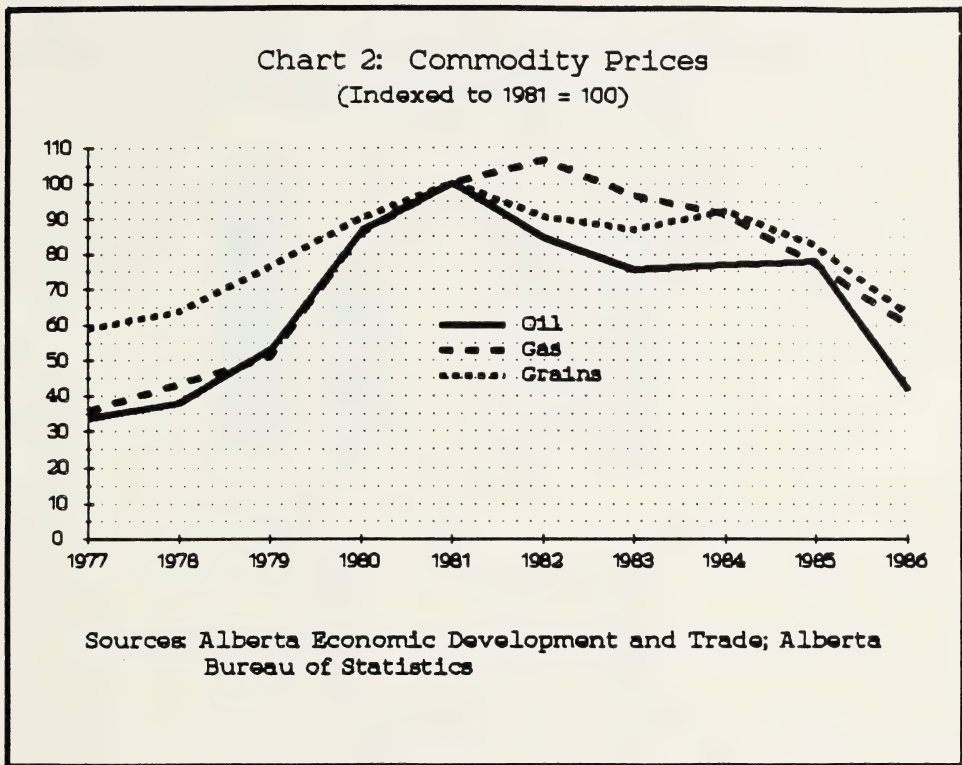
Source: Alberta Economic Development and Trade

- o Depressed world commodity prices, particularly oil, gas, and grain prices, caused Alberta to experience a sharp deterioration in its terms of trade in 1986 (see Chart 2 below). Although the Province was exporting roughly the same amount in terms of volumes, the drop in commodity prices resulted in an 18% decrease in the total value of exports.
- o Economic Development & Trade is forecasting that total Alberta exports will reach \$12.2 billion in 1987 and \$13.1 billion in 1988. This forecast is based primarily on the following sectoral outlooks.

NOTE: The sectoral outlooks do not focus on all Alberta exports. They do, however, focus on the recent performance and near term outlook of the Province's major exports (e.g. crude oil, natural gas, agricultural products, etc.). This information was used to derive the Department's forecast of total exports in 1987 and 1988.



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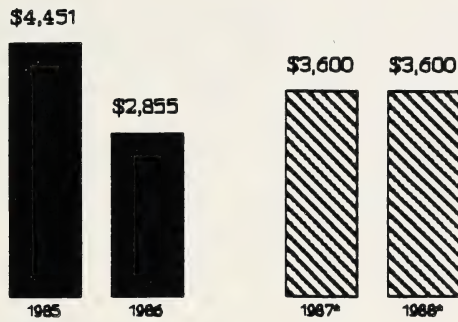


SECTORAL OUTLOOK - NATURAL RESOURCES

Crude Oil

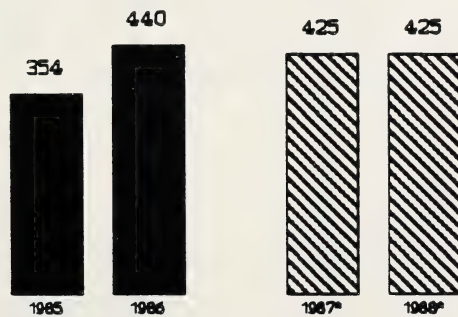
- o In the first half of 1987, world crude oil prices rose to the \$20 (U.S.) per barrel level. Prior to the June 25th meeting of the Organization of Petroleum Exporting Countries (OPEC), there was some uncertainty for the future of crude oil prices. Since OPEC is demonstrating discipline and staying close to the quotas established in the December 1986 agreement, prices should remain stable into 1988.
- o On June 1, 1987, Alberta's modified market proration plan was implemented. The new system may restrict access to high value markets for non-integrated producers because they may be unable to competitively price their extra crude production. As a result, there may be weaker wellhead prices for Alberta crude oil.

Chart 3A: Alberta Crude Oil Exports
Value (Millions of Dollars)



* Forecast

Chart 3B: Alberta Crude Oil Exports
Volume (Thousand Barrels Per Day)



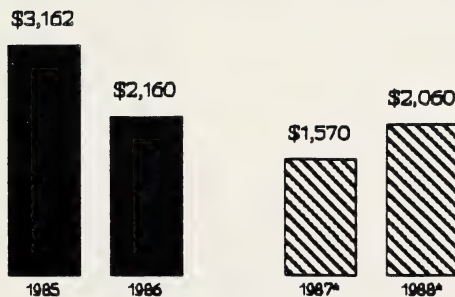
* Forecast

Sources: Energy Resources Conservation Board; Alberta
Energy; Interprovincial Pipelines Limited

Natural Gas

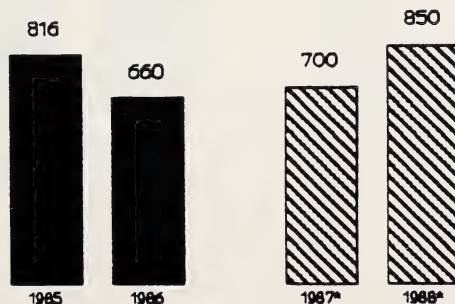
- o The price of North American natural gas over the 1987 - 1988 forecast period will depend on the consumption of the current over-supply of gas. In the near term, it appears that the excess supply of natural gas in the United States will continue and that prices will remain weak.
- o Exports to the mid-Atlantic region and the New England States look promising for late 1988, at which time the Iroquois Gas Transmission system should be completed. Alberta Northeast Gas has already indicated that it will be purchasing gas transported via TransCanada Pipelines to a maximum potential export level of 73 billion cubic feet by the end of 1988.

Chart 4A: Alberta Natural Gas Exports
Value (Millions of Dollars)



* Forecast

Chart 4B: Alberta Natural Gas Exports
Volume (Billion Cubic Feet)



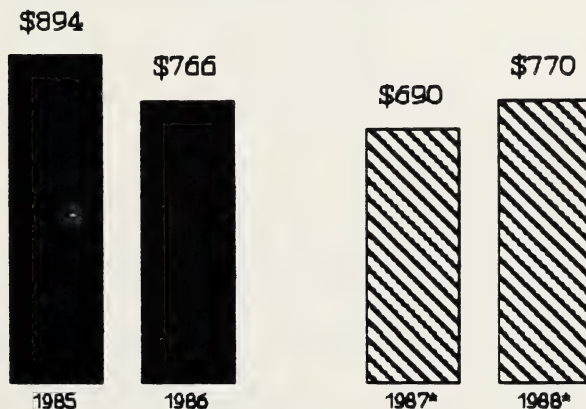
* Forecast

Sources: Energy Resources Conservation Board;
Alberta Energy

Sulphur

- o Sulphur produced in Alberta is largely a by-product of natural gas processing and synthetic crude oil production. Over 60% of Alberta's sulphur sales are used for phosphate fertilizer production. Consequently, sulphur shipments and prices are closely tied to the fertilizer industry and agricultural production.
- o The outlook for sulphur is subject to a number of uncertainties at this point in time. For example:
 - the use of phosphate fertilizer in North America and Western Europe continues to decline in response to depressed prices for agricultural commodities in international markets;
 - the unstable financial situation in Central and South America could result in a further loss of fertilizer markets;
 - purchasers of sulphur have been reluctant to commit themselves to contract tonnage because less expensive sulphur is available on the spot market; and
 - output from the Soviet Union's new Astrakhan plant will likely displace some Canadian exports.

Chart 5A: Alberta Sulphur Exports
Value (Millions of Dollars)



* Forecast

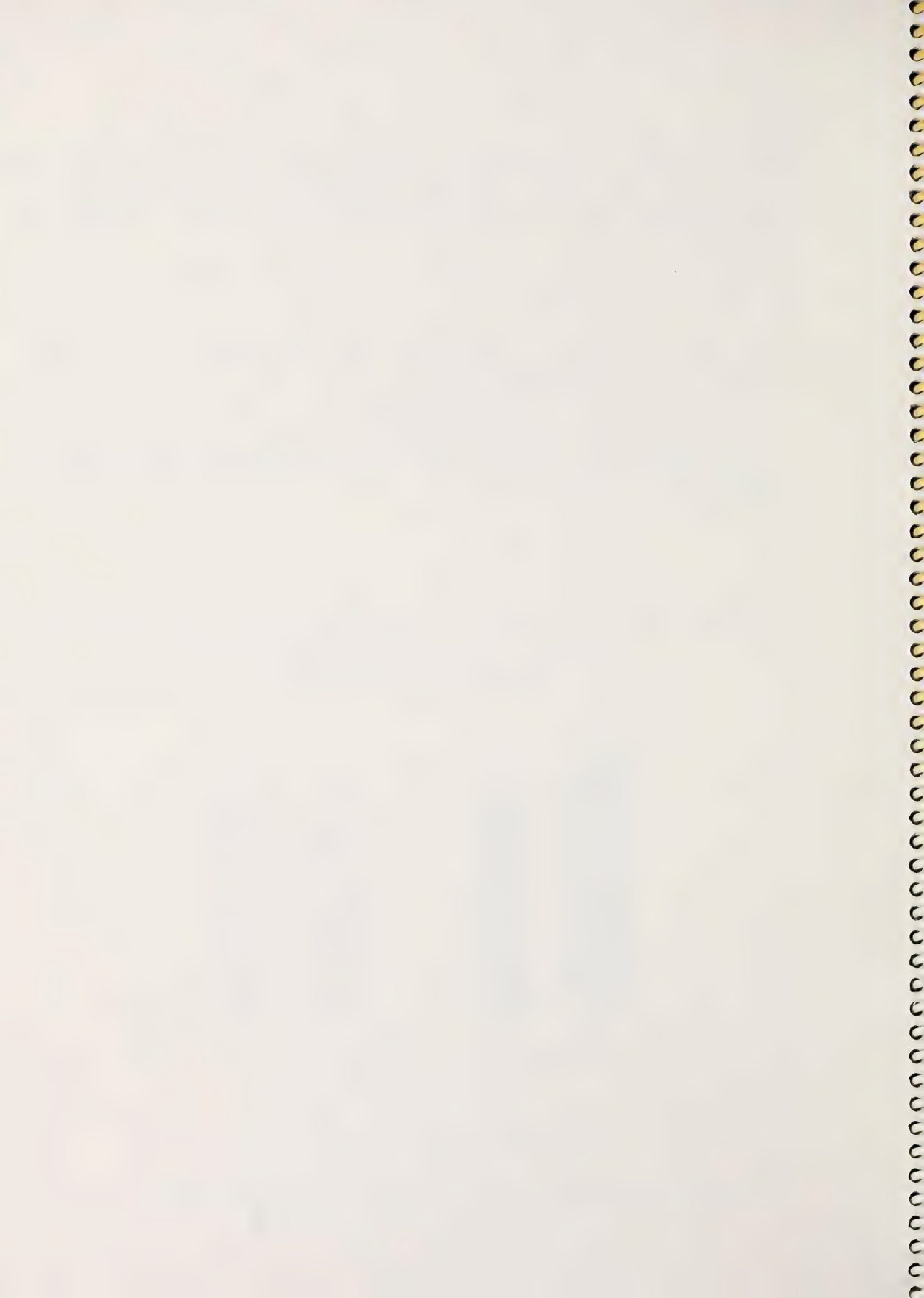
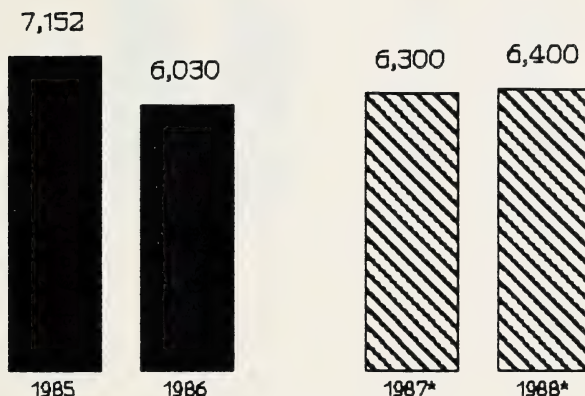


Chart 5B: Alberta Sulphur Exports
Volume (Thousand Tonnes)



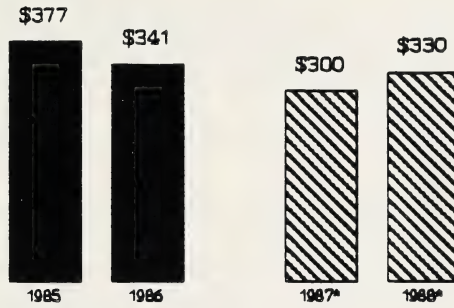
* Forecast

Source: Energy Resources Conservation Board

Coal

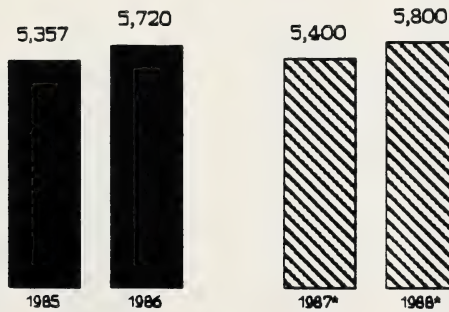
- o Japan accounted for almost 80% of Alberta coal exports in 1986, with the next largest markets being Brazil, France, Sweden, and Korea.
- o The volume of coal exports will be lower in 1987, primarily due to a drop in metallurgical coal exports to Japan.
- o World prices for metallurgical coal have weakened in the past two years due to surplus world supply and poor performance in the steel industry. Prices for thermal coal have also fallen in response to lower world oil prices.
- o Over the 1987 - 1988 forecast period, prices for both metallurgical and thermal coal are expected to stabilize somewhat.

Chart 6A: Alberta Coal Exports
Value (Millions of Dollars)



* Forecast

Chart 6B: Alberta Coal Exports
Volume (Thousand Tonnes)



* Forecast

Source: Energy Resources Conservation Board

SECTORAL OUTLOOK - MANUFACTURING

Petrochemicals

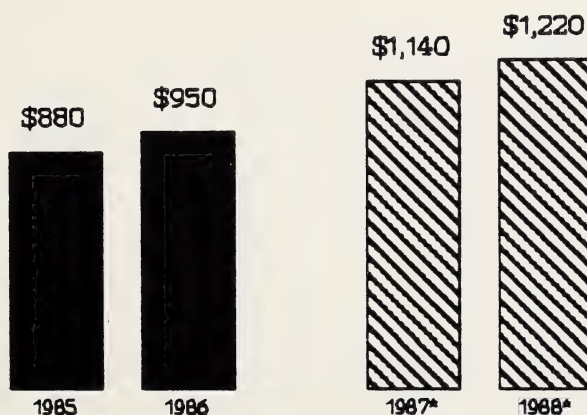
o Alberta's petrochemical industry has a number of comparative advantages. These would include:

- an abundant supply of natural gas;
- a competitively priced feedstock;
- proximity to key United States and Pacific Rim markets;
- a favourable exchange rate with the United States; and
- good labour relations and a supportive government environment.

o In 1987 and 1988, Economic Development & Trade is forecasting the following scenario:

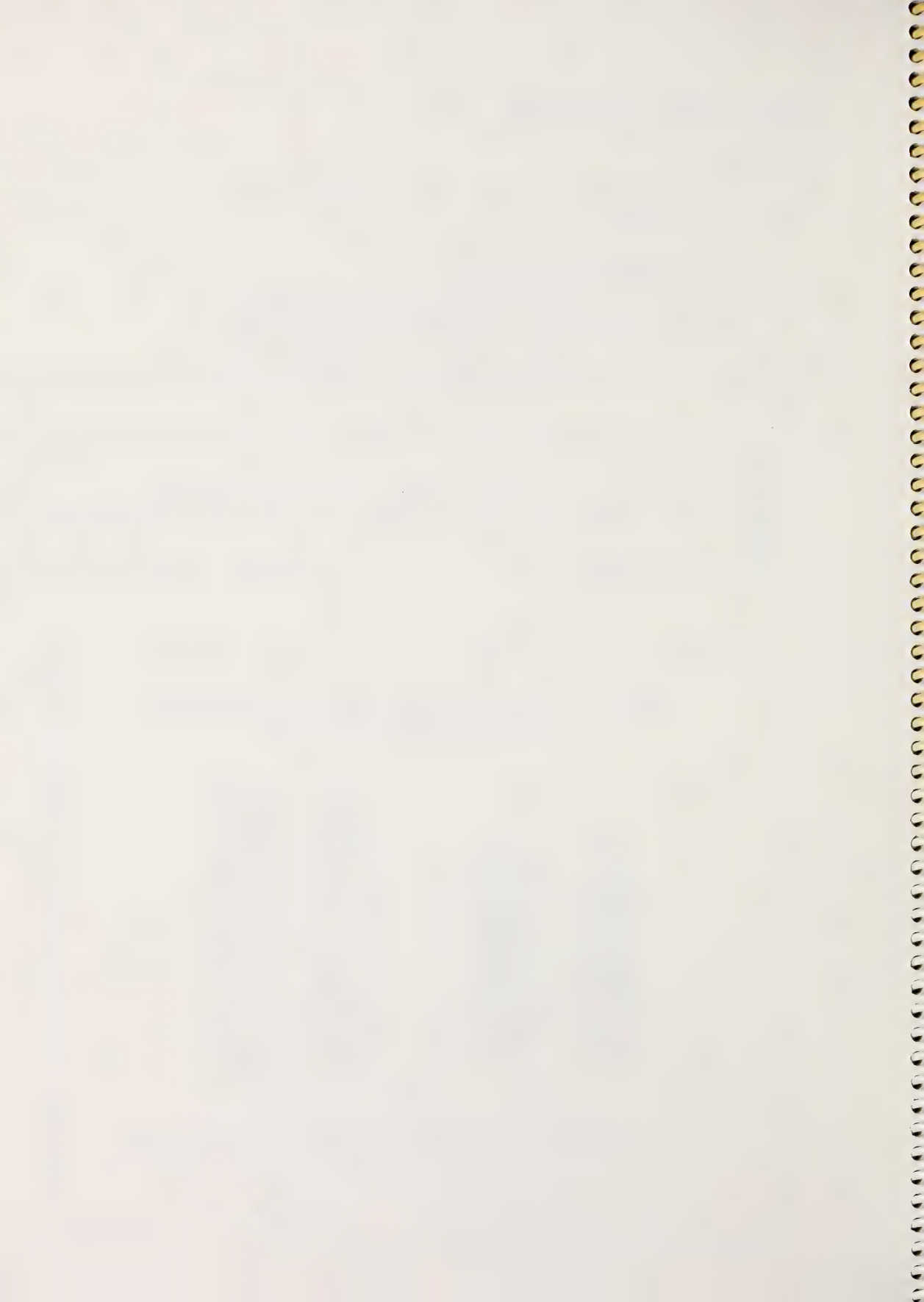
- fertilizer exports will be down from 1986 levels, largely because of weak product pricing;
- methanol exports should remain constant throughout the period;
- ethylene derivatives will be responsible for most of the increase in export value, owing primarily to stronger prices for one or two products; and
- 1988 export volumes should also show some strength as a number of plants are "debottlenecked".

Chart 7: Alberta Petrochemical Exports
Value (Millions of Dollars)



* Forecast

Source: Alberta Economic Development and Trade

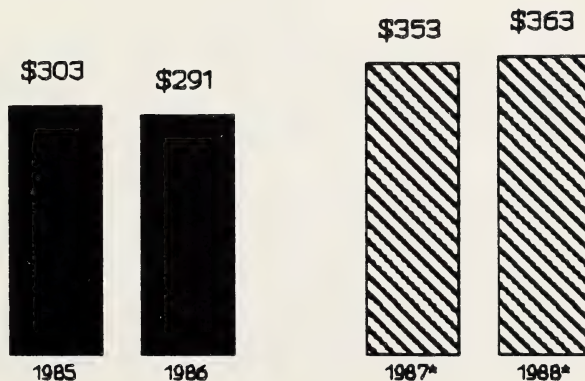


- o Alberta's petrochemical industry is highly dependent on trade, and the Bilateral Trade Negotiations are a priority issue for both the industry and the Alberta Government. A phase-out of all petrochemical tariffs between the two countries would greatly enhance the competitive position of Alberta producers (e.g. United States tariffs for most ethylene derivatives are in the range of 9% - 12%, while methanol is assessed a tariff of 18%). Still, these benefits would not be expected to accrue to Alberta producers until the early 1990's.

Pulp

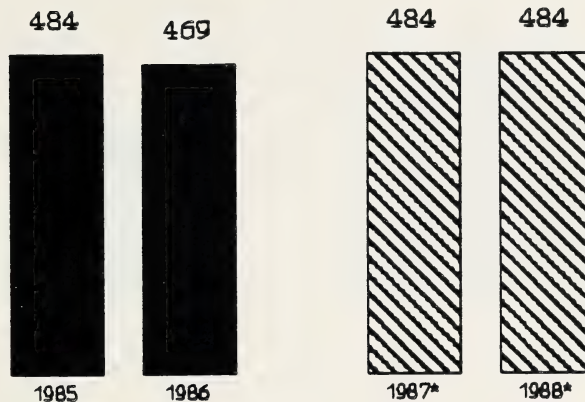
- o The volume of pulp exported from Alberta has remained relatively stable over the past few years. This trend is unlikely to change in 1987 and 1988. However, with a third pulp mill (Millar Western Pulp) opening in late 1988, new export capacity will be created.
- o The United States dollar price for bleached kraft softwood pulp increased 35% in 1986 (January over January), and has continued to increase throughout the first half of 1987. However, late in 1987 prices should start to fall in response to the traditional demand cycle for pulp. Prices are expected to recover in 1988.

Chart 8A: Alberta Pulp Exports
Value (Millions of Dollars)



* Forecast (does not include production expected to come on-stream at the end of 1988)

Chart 8B: Alberta Pulp Exports
Volume (Thousand Tonnes)



* Forecast (does not include production expected to come on-stream at the end of 1988)

Source: Alberta Forestry, Lands and Wildlife

Lumber

- o On December 30, 1986, the governments of Canada and the United States reached a negotiated settlement on the softwood lumber dispute. Under the terms of the agreement, Canada imposed a 15% export tax on softwood lumber shipments to the United States, effective January 8, 1987.
- o The full impact of the 15% export tax on Alberta lumber exports will depend upon the price of lumber in the United States and the relative value of the Canadian and United States currencies. The impact will be less if United States sawmills increase their prices and hold firm. However, there is a declining United States housing market and it is likely that prices will continue to fall, before recovering somewhat in early 1988. This latter assumption underlies our forecast for 1987 and 1988.
- o Over the longer term, it should be noted that Alberta has tremendous potential for expanded lumber production. In fact, the present annual cut of trees (softwoods and hardwoods) is less than 40% of the annual allowable cut of 26.0 million cubic metres.

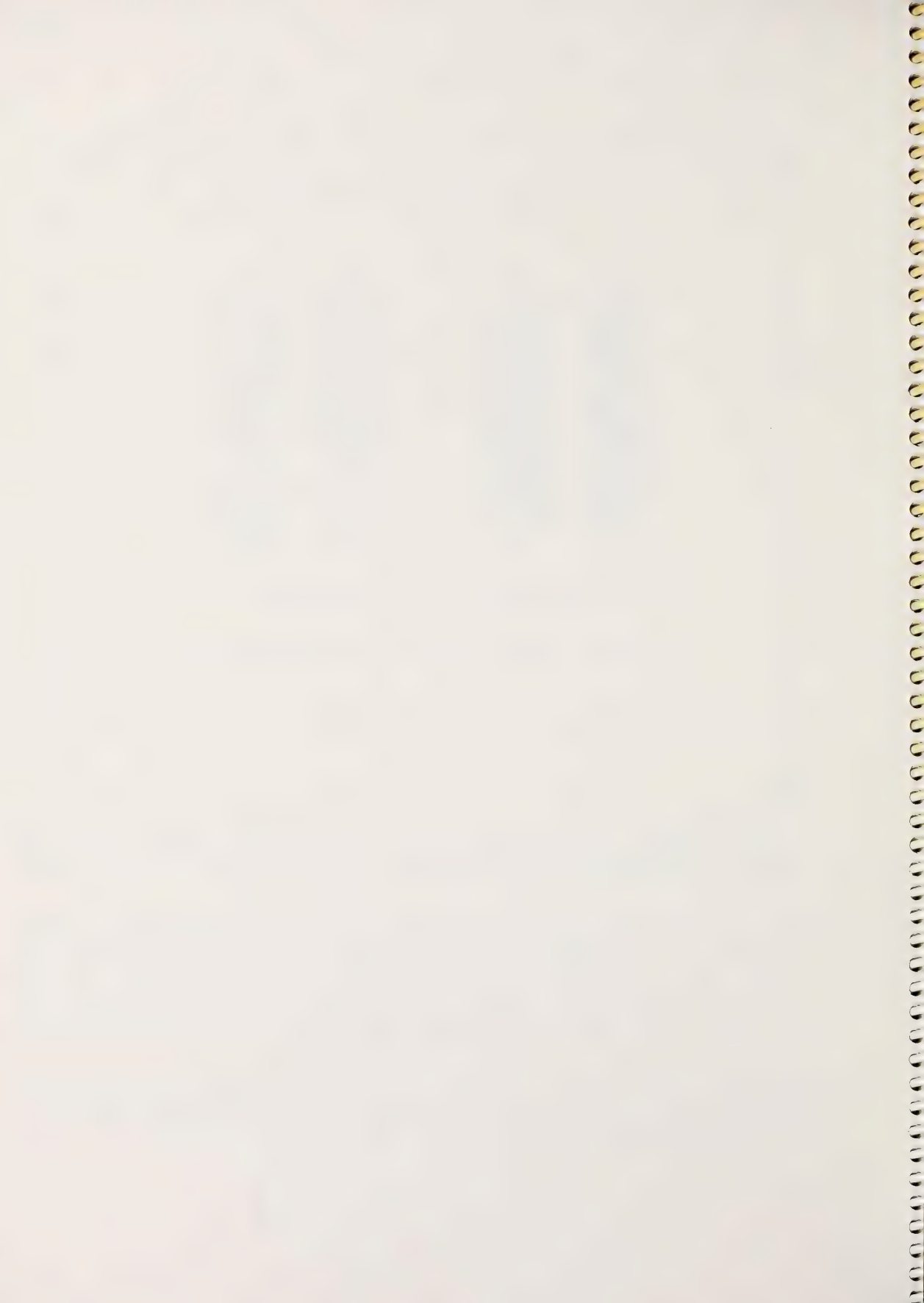
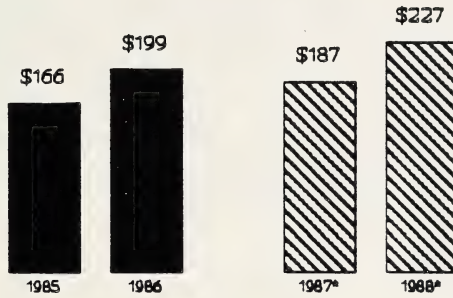
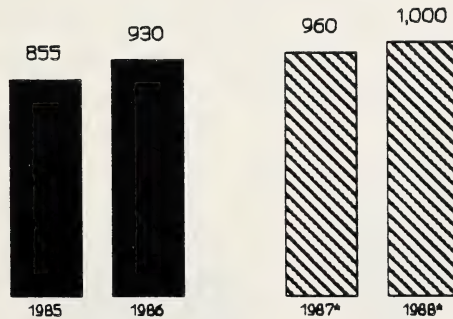


Chart 9A: Alberta Lumber Exports
Value (Millions of Dollars)



* Forecast

Chart 9B: Alberta Lumber Exports
Volume (Million Board Feet)



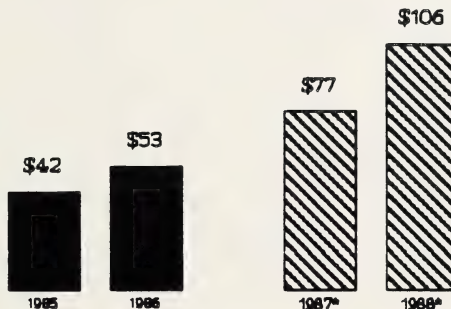
* Forecast

Source: Alberta Forestry, Lands and Wildlife

Oriented Strand Board/Waferboard

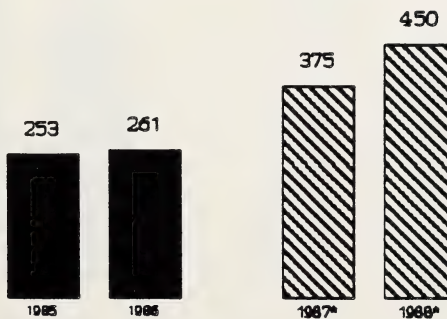
- o Unlike plywood, Oriented Strand Board (OSB) can be imported into the United States at a relatively low duty. As a result, OSB is increasingly being used as a low-cost substitute for plywood in the United States housing market.
- o The addition of new OSB productive capacity this year (Pelican Spruce Mills and Weldwood of Canada) is expected to result in stronger export volumes in 1987. Together with relatively stable to stronger prices, this should lead to a fairly dramatic increase in the value of Alberta's OSB/waferboard exports over the 1987 - 1988 forecast period.

Chart 10A: Alberta Oriented Strand Board/Waferboard Exports
Value (Millions of Dollars)



* Forecast

Chart 10B: Alberta Oriented Strand Board/Waferboard Exports
Volume (Million Square Feet)



* Forecast

Source: Alberta Forestry, Lands and Wildlife

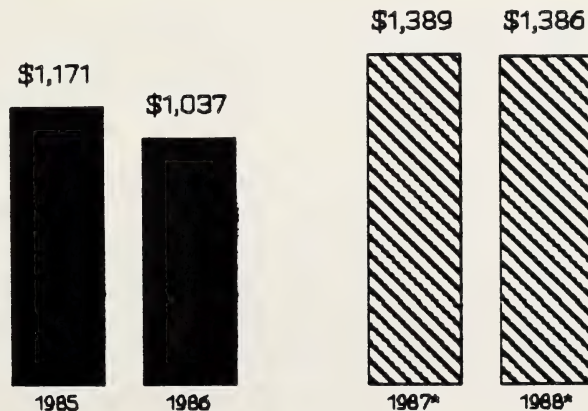
SECTORAL OUTLOOK - AGRICULTURE

Grain and Oilseed Crops

- o Global prices for grains and oilseeds have declined dramatically over the previous two year period in response to exporters' efforts to reduce burdensome surpluses. Policies implemented by the major exporting nations to maintain or increase market share, in combination with increased emphasis on production in cash poor importing nations have contributed to surpluses and price level declines.
- o Despite intensive efforts by the United States and the European Community to capture market share through export subsidies, Canada has been able to maintain its sales volumes of grains and oilseeds. If shipments remain at present levels, record export clearances could be a reality in 1987.
- o While producers will likely experience low price levels for the short to medium term, any turn around in price levels will have a favourable impact on the provincial agricultural sector because of the high level of exports.
- o Also, on the positive side, the United States Department of Agriculture's Export Enhancement Program does seem to be successfully reducing stocks in the United States. As well, the People's Republic of China, due to acreage displacement, and the Soviet Union, due to weather related factors, will probably need to import more grain in the near term. The present Canada/Soviet Union five year grain agreement remains a favourable factor for our industry despite United States attempts to gain market share through their Export Enhancement Program.

Chart 11A: Alberta Grain and Oilseed Exports
Value (Millions of Dollars)

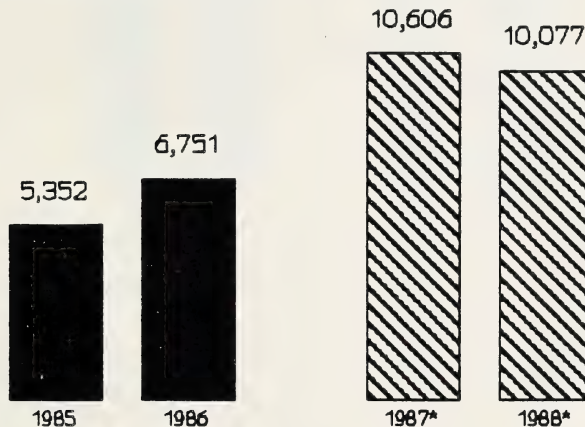
(Includes wheat, barley, canola, and other grain/oilseed crops)



* Forecast

Chart 11B: Alberta Grain and Oilseed Exports
Volume (Thousand Tonnes)

(Includes wheat, barley, canola, and other grain/oilseed crops)



* Forecast

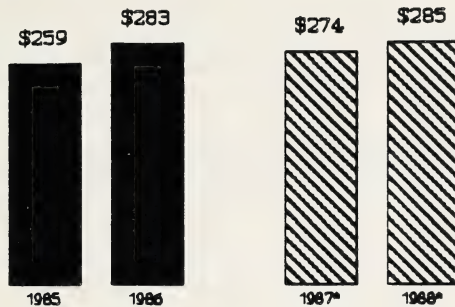
Source: Alberta Agriculture

Livestock/Red Meats

- o The value of Alberta's exports of livestock and red meats increased by 10% in 1986 due to increases in the value of shipments of live cattle, pork, and horsemeat. Hog exports declined primarily as a result of the 4.39¢/lb. (U.S.) countervailing duty applied to live hog shipments entering the United States.
- o Reduced feeding costs will encourage herd expansion. Retention of breeding stock has already occurred in the hog sector and is now beginning in the cattle sector. Ample supplies of pork and poultry meat should temper beef prices while expansion takes place, but beef prices should remain strong in the near term as a result of domestic and export competition for reduced numbers. The outcome of the current United States fact-finding investigation on beef and cattle trade with Canada could have a significant impact on Canadian beef and cattle exports in the future, although at this time it appears that the chances of trade remedy action are limited.

Chart 12: Alberta Livestock/Red Meat Exports
Value (Millions of Dollars)

(Includes cattle, hogs, beef, pork, and other red meats)



* Forecast

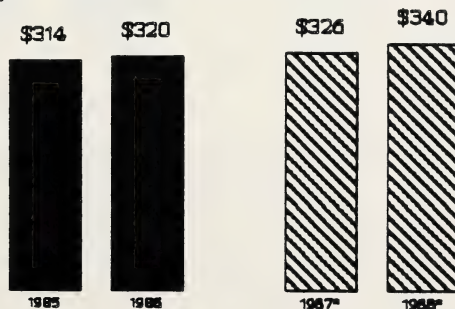
Source: Alberta Agriculture

Other Agricultural and Food Products

- o In 1986, canola product export volumes kept pace with 1985 levels, but competition from ample supplies of soyabean products and palm oil kept prices down significantly.
- o Demand for commodities such as dehydrated alfalfa products, forage seeds, and hides continued to be strong. Exports of peat moss continue to grow as does demand for special crops and forage seeds.

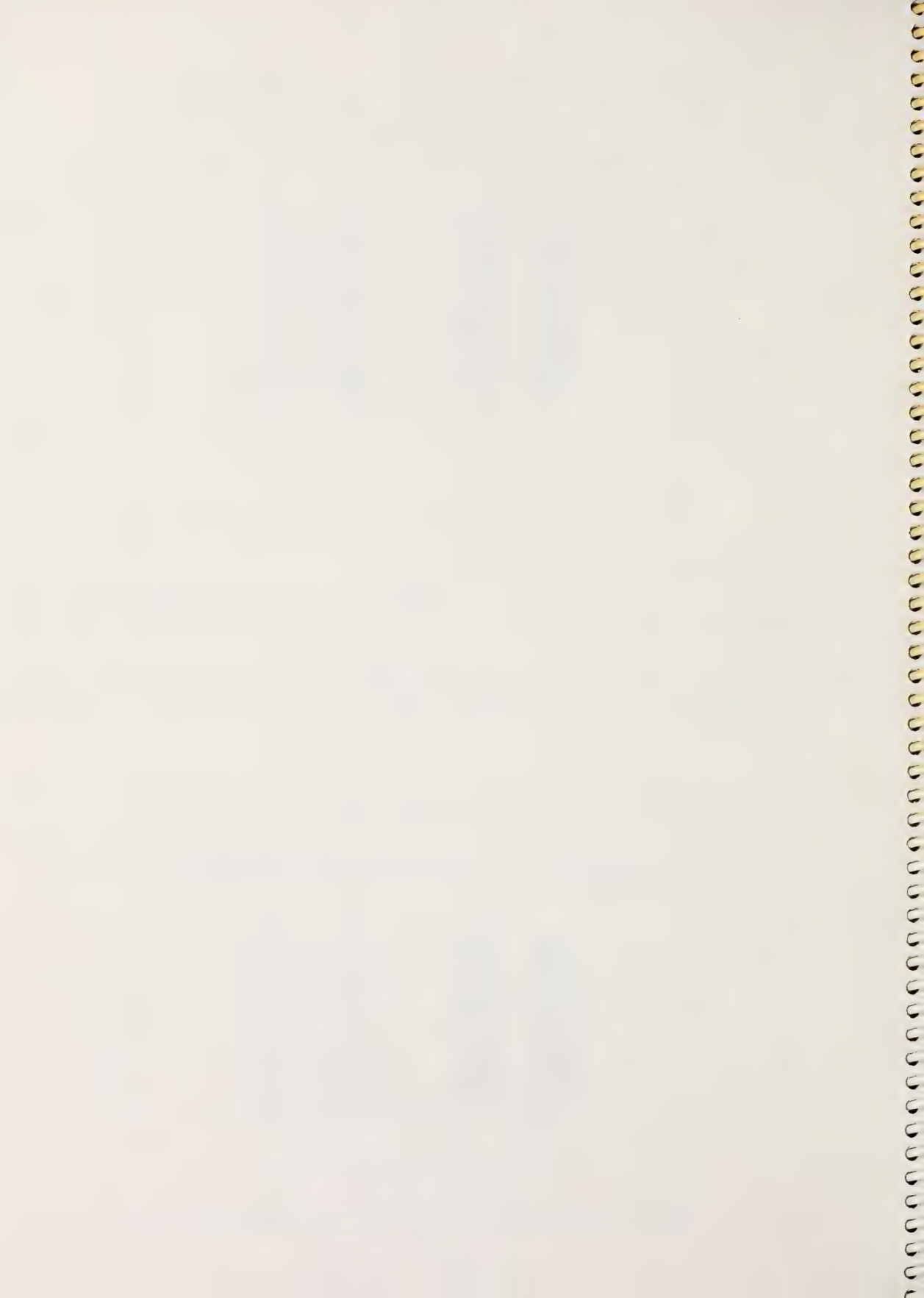
Chart 13: Other Agricultural and Food Product Exports
Value (Millions of Dollars)

(Includes canola oil, hides and skins, canola oilcake and meal, whiskey, dehydrated alfalfa, and other agricultural and food products)



* Forecast

Source: Alberta Agriculture

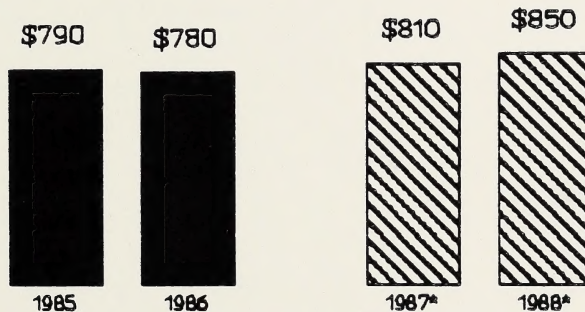


SECTORAL OUTLOOK - SERVICES

Service Sector Transactions

- o Tourism clearly dominates all other services (e.g. engineering, transportation, business consulting, etc.) in terms of total revenues, export revenues, and the number and percentage of firms involved in export activities.
- o Alberta's beautiful and varied terrain and its man-made attractions make tourism a natural growth sector. The 1988 Winter Olympic Games in Calgary should make Alberta even better known as an exciting tourist destination.
- o In 1987, revenues from foreign visitors are forecast to remain in the range of \$350 million, increasing to \$375 million in 1988. The outlook for engineering services is also quite optimistic, with export revenues totalling \$75 million in 1987 and increasing to \$105 million in 1988.

Chart 14: Total Alberta Exports - Services
Value (Millions of Dollars)



* Forecast

Sources: Alberta Economic Development and Trade;
Alberta Tourism

1. The first part of the paper discusses the importance of understanding the underlying mechanisms of the observed phenomena. This is crucial for developing effective interventions and policies. The authors argue that a comprehensive understanding of the system is necessary to address the complex challenges it presents.

2. The second part of the paper presents a detailed analysis of the data collected from the study. The authors use a variety of statistical methods to explore the relationships between the variables of interest. The results indicate that there are significant differences between the groups being compared, and these differences are likely due to the factors being studied.

3. The third part of the paper discusses the implications of the findings for practice and policy. The authors suggest that the results of the study can be used to inform the development of new programs and services that are better tailored to the needs of the population being studied. They also discuss the potential limitations of the study and the need for further research in this area.



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